

68. The method of claim 59, wherein the biomarker is selected from the group consisting of: Her-2/neu, estrogen receptor, progesterone receptor and epidermal growth factor receptor.

69. The method of claim 59, wherein the second stain reacts with a marker that is selected from the group consisting of: cytokeratin, beta catenin, alpha catenin and vimentin.

70. The method of claim 59, wherein, out-of-focus information is reduced from the first and second high resolution images.

71. The method of claim 59, wherein a mask is applied to the first and second high resolution images.

#### Remarks

Independent claim 47, from which claims 49-58 depend, is directed to a computer-implemented method for determining if a biomarker is present within a cellular compartment in a tissue section. Independent claim 59 is similar to claim 47, but includes additional steps to distinguish whether a biomarker is present within a first or a second cellular compartment.

Support for the independent claims can be found, for example, in Example 1, which teaches the claimed method in which the biomarker is estrogen receptor (ER), HER2/neu or beta-catenin and the cellular compartment is the nucleus (stained with DAPI) or cell membrane (stained with anti-alpha catenin). Additional support for the independent claims can be found, for example, on page 5, lines 4-13 and page 10, line 21 to page 13, line 2.

Support for the quantitation method described in dependent claims 48 and 60, can be found, for example on page 13, line 10-18.

Support for dependent claims 49 and 61, can be found, for example in original claims 9 and 12 and page 2, lines 23-26 (user defined area).

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Support for dependent claims 50 and 62, can be found, for example in Example 1 (page 27, lines 15-18).

Support for dependent claims 51 and 63, can be found, for example in Example 1 (page 28, lines 18-19).

Support for dependent claims 52 and 64, can be found, for example in original claims 10 and 13 and page 16, lines 27-29.

Support for dependent claims 53 and 65, can be found in Example 1 (page 27, line 12).

Support for dependent claims 54 and 66, can be found, for example on page 22, lines 7-15.

Support for dependent claims 55 and 67, can be found, for example on page 20, line 18 and in Example 1.

Support for dependent claims 56 and 68, can be found, for example on page 22, line 22 and in Example 1.

Support for dependent claim 69, can be found, for example in Example 1.

Support for dependent claims 57 and 70, can be found, for example on page 9, line 10-page 10, line 20.

Support for dependent claims 58 and 71, can be found, for example on page 7 to page 9, line 9.